

ZERO BEAT

HAMPDEN COUNTY RADIO ASSOCIATION, INC

W1 QSL BUREAU

SPRINGFIELD, MASS

ARRL AFFILIATED, 34th YEAR

WINY CLUB CALL

OCTOBER 1981

AUCTION

ANNUAL AUCTION

Friday Oct. 2, 1980

Feeding Hills
Congregational Church
Corner routes 57 and 187
Feeding Hills, Mass.

7:00 - 11:00 PM

Auction Rules

All items must be clearly labelled
with your name and call.

Club takes 10% of all sales.

No minimum. Seller bids to
protect his own item. No charge if
the seller buys his own item.

Items donated to the club for sale
should be labeled as such.

Seller guarantees the item, not the
club.

This is a great opportunity to pick
up those items you need to restock
your spare parts box and get those
parts you need start that homebrew
project you have been promising to
build. See you there....

AUCTIONEER HAS FINAL SAY ON ALL
SALES



HAMPDEN COUNTY RADIO ASSN.

AUCTION!
AUCTION!

THE H.C.R.A. EXTENDS IT'S BEST WISHES FOR A SPEEDY RECOVERY
TO "DUKE" KALDTH GET WELL SOON DUKE

OCT. '81 ZERO BEAT

HAMPDEN COUNTY RADIO ASSOCIATION, INC.

Board of Directors and Officers for 1981-82

Ron Beauchemin	WB1ETS - President	. . .	593-9852
Paul Kress	WA1ZKT - Vice President	. . .	568-8291
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John Balboni	AC1T	786-2438

NOTICE

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The Hampden County Radio Association has been asked to provide communications for the Boy Scouts of America at their New England Region Camparee. This event will be held in West Springfield on the weekend of October 9, 10, and 11 (Columbus Day Weekend). Approximately three radio operators will be required at all times to provide communications from all areas of the Camparee grounds to a central location with Hand-Held two meter rigs.

All those who may be interested and available for periods of 3-4 hours or more during the weekend, starting Friday, October 9th. at 5:00 PM, through Sunday afternoon, October 11th., please call:

Paul Kress
WA1ZKT
568-8291 (Westfield)

The Boy Scouts will provide meals and sleeping bags for those that are there overnight.

This is our opportunity to provide a public service to the community and prove our worth. Your help is needed. Please Call!

Antenna Antics

A series of articles will appear in Zero Beat during the coming year presenting a variety of antenna ideas, some of which may be of use to you. The antennas will be conceptual in design and may or may not provide construction details. Emphasis will be on building antennas from readily available, inexpensive materials such as wire and rope. Each of the designs presented can be used for HF, VHF or UHF, depending on your construction ingenuity.

Feedback, including comments and suggestions, as well as your own ideas for antennas are invited.

To begin the series, we should first look at that very important link between your transmitter and the antenna, the transmission line. In keeping with the philosophy of using low cost, readily available materials, the common, garden-variety 300 ohm TV lead-in wire will be used as a transmission line. This line is readily available in any discount house at a fraction of the cost of coaxial cable. 300 ohm TV twin lead is not only inexpensive, it also exhibits a much lower loss per 100 feet than does coax and is capable of safely handling power levels of 250 watts. So why do we use coax, you ask, if TV twin lead is better? TV twin lead can be very lossy at very high frequencies (2 meters) if it gets wet. This is not a problem in the HF ranges, however, and your author has used twin lead on very wet field days as well as on rainy days at home without any ill effects. TV twin lead must be kept several inches away from metal objects such as downspouts and metal masts in order that the line's electrical symmetry is not distorted (unbalanced) since this is a balanced feed line. A distance of 3" - 4" should be adequate for spacing.

TV twin lead also has the distinct advantage of simplicity in getting the line into the shack: Open window, pass lead in, close window. What could be easier?

TV twin lead in has other advantages over coax but enough for now.

TV twin lead is a balanced line and should be fed as a balanced line. For those of you with "antenna tuners" that will accept a balanced feed line, you're in business. For those of you with tuners that feed only coax, read the next article that will discuss simple homebrew baluns and balanced line tuners.

73's

Paul, W1ZKT

For Sale

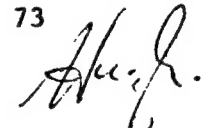
20 METER QUAD \$20.00
SINGLE 572B 500 WATT LINEAR
80-10 METERS NO TUBE \$70.00
SNOWMOBILE TRAILER \$125.00

CALL GENT LAMB W1CQF

413-737-9426

RTTY: Model 14 Typing Reperforator
and Model 14 Transmitter Distributor,
both in good working condition. \$5.00
each if you pick them up. Phone Hugh
W1PN evenings (155 Amity St., Amherst,
MA 01002; 413-549-5062).

73



Hugh Aitken W1PN

FOR SALE:

YAESU FT 101E WITH ALL OPTIONS INCLUDING FAN, CW FILTER, CRYSTALS FOR 160, 80, 40, 20, 11, 10 METERS. SERVICE MANUAL, SPARE FINALS, FT NEWSLETTERS AND KEYER INCLUDED OPERATES EITHER 12v OR 115v. EXCELLENT CONDITION
SALE PRICE \$575.00 CALL PAUL W1ZKT 568-8291



RADIO FROM WAY BACK WHEN...

REMINISCENCES OF W1JWV.

Preamble:

Before talking about the early days of "ham radio" and its constant growth and popularity, it might be well to chronicle events that sired the hobby.

The world first learned of the possibilities of radio when newspapers on the morning of January 20, 1903, told of the historic achievement of Guglielmo Marconi the previous evening, when, from his experimental station atop the sand dunes of Nauset Beach on Cape Cod he successfully sent a message from President Teddy Roosevelt across the Atlantic to His Majesty Edward VII in London, England.

Marconi's original call was CC, and his station consisted of four massive towers, all wooden, and several hundred feet of wire antenna.

To commemorate the 50th anniversary of his feat, a monument was erected at the sight in 1953. Incidentally as late as 1973, parts of the tower and support cables were still visible.

To complete the Marconi story, a group of fellow hams headed by William Santelmann, Jr, in 1972 petitioned the FCC to grant them a temporary call sign to be used the week of January 19, 1973, commemorating the 70th anniversary of the original feat. They were granted the call sign WC1MAR. The group set up two mobile stations, one in a trailer and one in a tent, powered by portable generators to provide power for the gear and lights. Many domestic and foreign hams were contacted that week.

The night of January 19, 1973 at 0256 hours, GMT, the historic message was repeated at Marconi's original speed of 14 wpm. Many hams participated in copying the message and were issued QSL certificates bearing the WC1MAR call sign and signifying they were honorary Marconi Wireless Operators!

General interest was further stimulated when wireless gear and operators were installed on ocean going liners, one being the ill-fated Titanic. Ham radio got underway in earnest when the war ended and ex-navy operators decided to concoct "home-brew" stations. They put their stations in wood sheds, unused hen houses, et cetera, and that was where the term "radio shack" originated! The whole neighborhood for several hundred yards around knew when these pioneer hams were on the air. If one left the shack door open, the crash of his spark gap or whine of his rotary gap was audible and house lights flickered.

In the early days hams chose their own call sign. I won't go into the concoction of 60 to 80 foot wooden towers with horizontal cleats so that the operators could climb to the top. Also such early items as home brew tuning coils, helixes, loose couplers, condensers, etc, can be seen in the museum maintained by the ARRL and at other clubs.

In 1924, one of our old timers, Howard Gurney, W1IC, made the Sunday newspaper when he set up antennas, receiver, and loud speakers in the Hampden church and the congregation listened to a service broadcast from a Springfield church.

ZERO BEAT

In the late 1930's and 40's, 10 meters was very active because hams with home brew transmitters could contact other hams at great distances with very low power. The hurricane of '38 brought many of us into emergency operation. At the height of the storm huge trees littered the countryside, and as they crashed down they took electricity and phone lines with them! Wooden masts weren't toppled but were twisted in two as one would twist a wooden match between his fingers!

In 1940 the Signal Corps of the U.S. Army certified some of us to be Army Amateur Radio Stations to handle traffic in our area. We held formal drills every Sunday morning, and at our drill time, December 7, 1941, we learned of the sneak attack on Pearl Harbor, ending our drills on 10 meters.

Following this catastrophe the government, fearing night air raids on the mainland, decreed that all cities and towns be "blackout" after sundown. Civilian defense headquarters were speedily set up in strategic spots. Hams with mobile equipment were finger-printed, given special ID cards and formed night patrols. The upper-half of our lenses on the cars were masked, so as not to be visible from the air.

After the war, ham radio took tremendous strides when surplus military radio equipment was made available. For an example, a 522 HF unit used in fighter planes was available from dealers for \$29.50, including the 24 volt generator. Cost to the government was \$1500.00 originally!

The 522 had 4 different sockets so that the operator with four different crystals had a choice of different frequencies. An amateur could easily modify this unit as an exciter on two meters. Many converted units were used in the sweepstakes competition when contests between clubs became commonplace. HCRA always placed well in such contests! (See article in this issue about the '81 competition...ed)

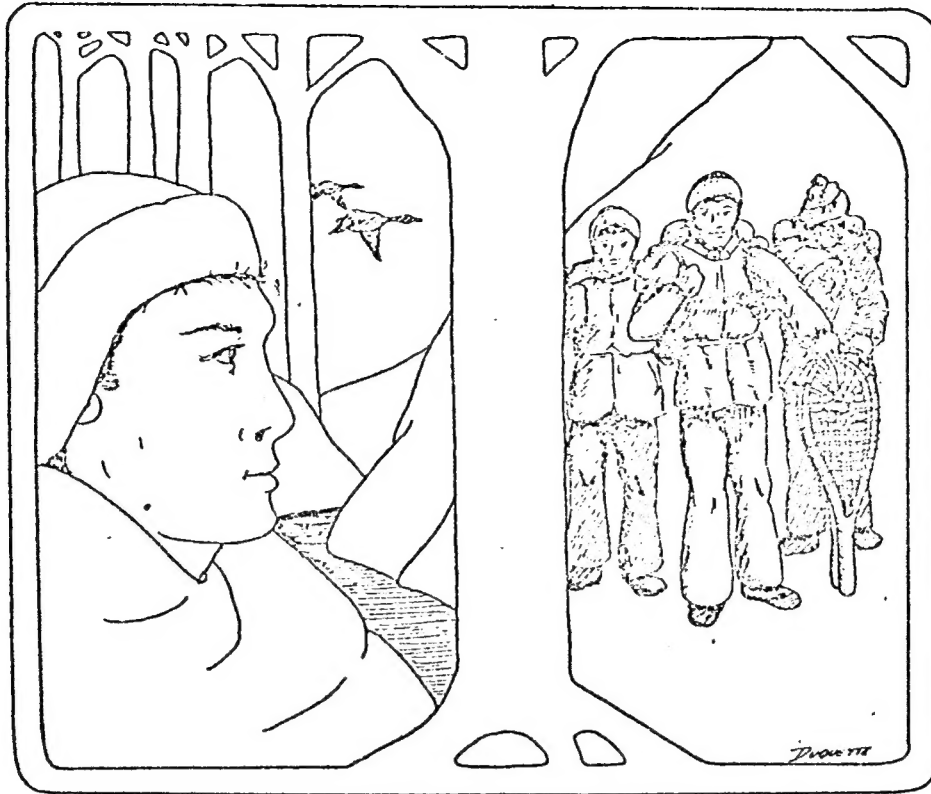
1948 saw the founding of the HCRC by a group of ardent amateurs who are listed in the club's archives. The club progressed so rapidly that in 1952 we sponsored the annual New England "hamfest", held at the Exposition grounds. Visitors from neighboring states joined in the festivities.

1954 saw hurricanes Carol, Edna, and Hazel devastate large sections of the countryside and over 1200 hams performed public service emergency duty so well that we received awards from the ARRL, and the Edison Radio Amateur Award 1954 Hurricane Citation. This latter award was highly prized because it was signed by the FCC Commissioner, the president of the ARRL, the president of the American Red Cross, and the administrator of the Federal Civil Defense.

Lightning fast progress of the last two decades in all phases of electronics such as printed circuits, miniaturization, versatility of transistors, and use of "chips" leaves one breathless! Moon bounce, amateur satellites, relay via satellites, etc are all every day events. Amateurs from the oldest veteran to the youngest novice should always be ready for the unexpected and set to do the impossible! Who can predict what's next?

All of us can cite experiences which skeptics may doubt, but verifying QSLs silence any doubters! 73 to all, and good DX or whatever may be your forte,

Howard Cutting W1JWV



SURVIVAL HIKE

by
JEFFREY J. DUQUETTE K1BE
(Drawings by Patrick Duquette)

CONTINUED FROM SEPTEMBER ZERO BEAT

Percy Noble, W1BVR, had been standing by on the frequency of the Western Massachusetts Net for several hours, in anticipation of its activation to help the Civil Defense Agencies. He was concentrating on reading the newspaper when he thought he heard it, a weak SOS for sure. Now he's signing, Percy thought. Why, it's Jeff! That's not him at the key, though; it's someone inexperienced. Percy quickly replied, being careful to send as slowly as the other operator had.

K1BE DE W1BVR W1BVR WHAT'S THE NATURE OF YOUR EMERGENCY? K

"Someone heard us," exclaimed Glenna, as she once again concentrated on her sending:

W1BVR DE K1BE BADLY BURNED HIKER X WE ARE AT MCKINNY CABIN, MOUNT MOOSELAUKE, IN NH X REQUIRE DOCTOR AND EVACUATION K

Percy called to his wife to call Doc Barnett and the state police. He then transmitted to the unknown operator:

RRR WE ARE GETTING HELPX WHERE ARE THE BURNS X WHAT FIRST AID TREATMENT HAVE YOU USED? X HOW DOES THE INJURED LOOK? X IS HE CONSCIOUS? K

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Interference from another amateur blocked out the answer. Percy quickly called the blocking station and informed him that an emergency was in progress. The other station moved away, and began to warn other amateurs to free the frequency. The weak signals were still there. Percy asked for a repeat and received this message:

R R R BURNS ON ARMS AND CHEST X BANDAGED AS BEST WE COULD X FACE IS PALE, BREATHING SHALLOW, FACE FEELS CLAMMY, WHAT SHOULD WE DO? K

Percy spoke to the doctor on the phone and quickly appraised him of the situation. The doctor's instructions were then sent:

KIBE DE WIBVR R RAISE FEET X YOU MUST IMMEDIATELY APPLY WARMTH TO THE BODY AREA, BUT NOT JUST THE ARMS AND LEGS X DO NOT APPLY HOT THINGS, JUST WARMTH, ABOUT THE TEMPERATURE OF YOUR OWN BODYX I REPEAT.....

Glenna's fingers were cramped as she copied the slow morse code. "He says we've got to put some warmth next to Jeff," Carl said, reading the message. "What can we use?" Morgan wanted to know. "Heather, Brian, gently lie down next to Jeff and keep him warm with your body heat. Try not to touch the burns," Carl commanded. "Morgan, pile the wood into that stove and put some heat into this cabin!"

Carl pulled out the last of the down sleeping bags and covered Jeff with them. He also raised Jeff's legs a little more by placing extra clothes under them. "Glenna, ask them what else we have to do," Carl said. The message went out:

R R R WE ARE DOING EVERYTHING WE CAN TO KEEP HIM WARM X WHEN WILL HELP ARRIVE? WHEN WILL HELP ARRIVE? K

Percy had been busy on the phone line. The New Hampshire state police and the National Park Service were organizing to help. Other ham operators guarded either side of the emergency frequency so that no interference could blot out the weak signal. As Percy sent out the message, he wondered how they would take the news:

KIBE DE WIBVR R R RESCUE IS BEING ORGANIZED BUT ROADS MUST BE PLOWED TO GET NEAR YOU X SNOWMOBILES WITH DOCTOR SHOULD ARRIVE ABOUT TEN TOMORROW X WHAT IS THE CONDITION OF THE INJURED? X I REPEAT....K

Glenna asked Carl to check on Jeff's condition. As Morgan busily chopped wood for the stove, Brian whispered to Carl, "His heartbeat is stronger. I can hear it. His breathing has become more regular, too."

Carl noticed that Jeff's color looked better. Glenna sent out the information, and then began the all-night vigil.

Everyone thought the morning would never come. The wood stove blazed, heating the cabin as never before. Drowsy with fatigue, heads drooped, trying to stay awake. The odors of smoke from the stove, onion soup, burned skin, and fear permeated the confined area. Would morning ever arrive?

Glenna jerked awake, startled by a crackle in the earphones. She had stayed at her station all night, in case there were any more messages. "Listen!" she cried. Morgan, dozing in his position at the stove, replied, "I don't hear anything." "That's right, the blizzard's gone," said Glenna. She put the earphones on and began calling:

WIBVR DE KIBE BLIZZARD HAS STOPPED HERE X CAN RESCUE EFFORTS BE HURRIED NOW? K

Percy, who had also spent a long vigil during the night, quickly answered:

R R KIBE DE WIBVR WE WILL SEE WHAT IS POSSIBLE X STAND BY

A few minutes passed and then the code crackled in Glenna's ear:

BK GOOD NEWS X STATE POLICE CAN NOW SEND HELICOPTER X MARK THE LANDING SPOT WITH AN ARROW TRAMPED IN THE SNOW X WILL ARRIVE WITHIN THE HOUR X I REPEAT.....K

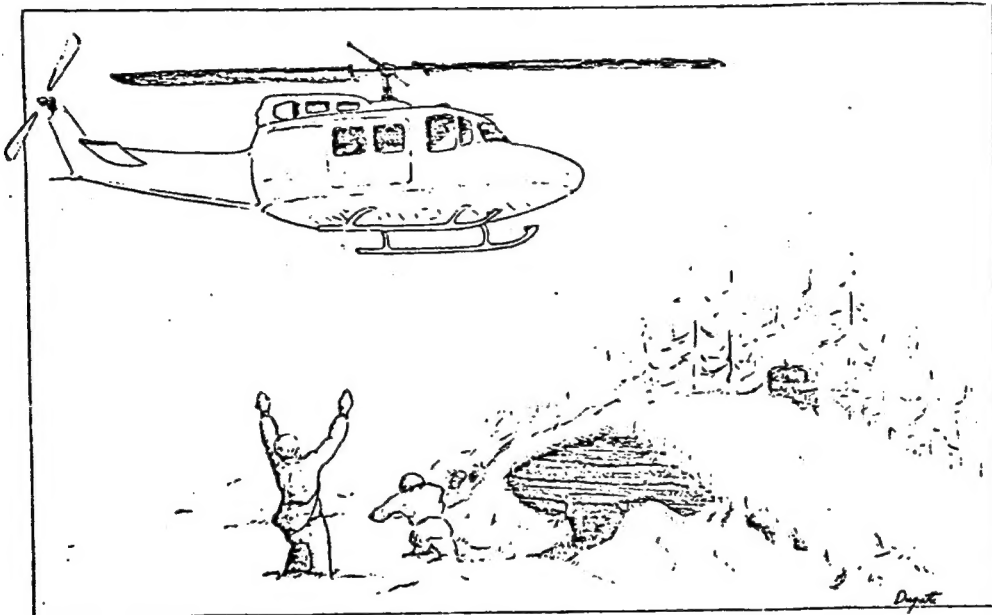
Glenna acknowledged the news and told her friends. Smiles brightened their faces. Carl and Morgan pushed open the door as the first rays of sunshine came down from a very blue sky. The large arrow they tramped in the snow in a nearby field was only just finished when they heard the whup, whup, whup of an approaching 'copter.

The tall state policeman commented, as they watched the ascending helicopter: "Your friend will be in the hospital in less than fifteen minutes. You all did a great job. Which one of you is the radioman?"

Glenna reddened as the officer shook her hand and congratulated her for doing such a good job under trying conditions.

"The snowmobiles should be here to pick us up within two hours. But your parents won't be able to drive up to get you for another day. You'll have to be guests of the National Park Service until then," said the officer.

"In that case, we'd better all get ready and clean up the cabin," Carl replied. As the group followed him back into the cabin, every eye glistened with tears. It must have been the bright sunshine and the fact that they were all suddenly very, very tired.



They had only just finished when they heard the whup, whup, whup of an approaching 'copter.

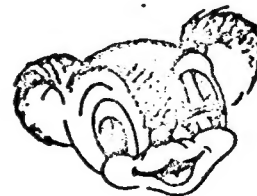
Postscript: On July 4th, Glenna received the trophy for placing second in the United States at the Judo Nationals. In the cheering crowd, none yelled and clapped so loudly as did Jeff, her judo coach and good friend.

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JEFFREY J. DUQUETTE

"Quick As A Wink" Printing & Sales Co.
573 Union Street West Springfield, Ma. 01089

NOTE: NEW ADDRESS



FIRST CLASS MAIL

10/82

AC1T

OCTOBER ZERO BEAT



EAST LONGMEADOW, MASS. 01028

97 BROOKHAVEN DR.

RAY MORIN, KA1CRG, EDITOR

HAMPDEN COUNTY RADIO ASSOCIATION, INC.

HAMPDEN COUNTY RADIO ASSOCIATION, INC.

Calendar for 1981-82

Club Meetings

<u>Date</u>	<u>Topic</u>	<u>Chairman</u>	<u>Speaker</u>
Oct. 2	Auction	Gent WA1CQF	
Nov. 6	Propagation	Paul WA1ZKT	Ed Tilton W1HDQ
Dec. 4	Christmas Party	Ron WB1ETS	
Jan. 8	R.F.I.	Malcolm WB1CLO	T.B.A.
Feb. 5	Linear Amps	Dick N8BQU	Gent WA1CQF
Mar. 5	International DX	Steve WA1EYF	BILL Poellnitz K1MM
Apr. 2	VHF, UHF, & Moonbounce	John AC1T	David Olean K1WHS
May 7	Flea Market	Larry K1GXU	
June 4	Banquet	Ron WB1ETS	